

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) An apparatus for tempering a bent glass sheet, comprising means for conveying the bent glass sheet along a predetermined path through the apparatus, and a pair of blastheads for quenching the bent glass sheet with jets of quench gas, the blastheads comprising upper and lower blastheads arranged in opposed relationship above and below the predetermined path, each blasthead comprising a plurality of spaced elongate plenums for supplying quench gas to an array of quench nozzles from which the jets of quench gas issue, each plenum possessing a longitudinal centerline extending along a longitudinal extent of the plenum, each nozzle possessing an axis, each plenum bearing one or two rows of quench nozzles, successive such rows constituting the array of quench nozzles, the length of the quench nozzles exceeding their diameter, and the quench nozzles of each plenum being mutually inclined so that the axes of some of the nozzles of each plenum are inclined to one side of the plenum relative to a vertical plane containing the longitudinal centerline of the plenum and the axes of others of the nozzles in each plenum are inclined towards an opposite side of the plenum relative to the vertical plane containing the longitudinal centerline of the plenum to provide diverging jets of quench gas, wherein each of the plenums extends transversely to the direction of conveyance of the bent glass sheet, thereby affording side access between adjacent pairs of plenums, and each array of quench nozzles is curved in at

least one direction, the apparatus possessing a centerline parallel to the direction of conveyance, and successive plenums of the lower blasthead are connected to each other by connecting surfaces which are positioned between and connected to the successive plenums, the connecting surfaces being inclined downwards away from the centerline.

2. (Previously Presented) An apparatus as claimed in claim 1, wherein the one or two rows of quench nozzles constituting the arrays extend along lines which are curved in the direction of elongation of the plenums.

3. (Previously Presented) An apparatus as claimed in claim 2, wherein the one or two rows of quench nozzles extend along lines which are curved to match the average local curvature of the bent glass sheet and are curved in a direction that is the same as the bent glass sheet.

4. (Previously Presented) An apparatus as claimed in claim 1, wherein successive plenums in the direction of conveyance are arranged so that their profile at the level of the nozzles is curved in the direction of conveyance.

5. (Original) An apparatus as claimed in claim 4, wherein the profile of the plenums is curved to match the average local curvature of the bent glass sheet in the direction of conveyance.

6. (Previously Presented) An apparatus as claimed in claim 4, wherein the blastheads are arranged to be movable towards and away from each other.

7. (Canceled)

8. (Canceled)

9. (Previously Presented) An apparatus as claimed in claim 1, wherein the quench nozzles are formed as bores in a nozzle bar, the outlets of the nozzles being level with a surface of the bar, at least one such bar being incorporated into each plenum at its end nearest to the path of conveyance of the bent glass sheet.

10. (Original) An apparatus as claimed in claim 9, wherein the bores are part cylindrical and part conical, the conical part being at the inlet end.

11. (Original) An apparatus as claimed in claim 10, wherein the length of the cylindrical part of the bore is equal to or greater than the length of the conical part.

12. (Previously Presented) An apparatus as claimed in claim 9, wherein the bar is non-metallic.

13. (Withdrawn) A method of tempering a bent glass sheet, comprising conveying the sheet along a predetermined path through an apparatus according to

claim 1, and quenching the sheet with diverging jets of quench gas, the bent glass sheet being conveyed transversely to the direction of elongation of the plenums, and the diverging jets of quench gas issuing from an array of quench nozzles which is curved in at least one direction.

14. (Withdrawn) A method of tempering a bent glass sheet as claimed in claim 13, comprising moving the blastheads apart to allow the sheet to enter between them, moving the blastheads towards each other for the quenching operation, and moving them apart again to allow the sheet to exit from between the blastheads.

15. (Withdrawn) A method as claimed in claim 13, wherein the bent glass sheet is elongate in one direction, comprising conveying the sheet with its direction of elongation perpendicular to the direction of conveyance and parallel to the direction of elongation of the plenums.

16. (Withdrawn) A method as claimed in claim 13, wherein the jets of quench gas are arranged to impinge on the glass sheet in a "domino 5" pattern.

17. (Withdrawn) A method as claimed in claim 13, wherein the toughening stresses generated in the bent and tempered glass sheet are non-uniform.

18. (Withdrawn) A production line for producing bent and tempered glass sheets, comprising a furnace for heating the glass sheets, a bending station, an

apparatus according to claim 1, an unloading station and a means of advancing the sheets along a predetermined path along the line.

19. (Previously Presented) An apparatus as claimed in claim 9, wherein the bar is composed of polytetrafluoroethylene.

20. (Previously Presented) An apparatus as claimed in claim 9, wherein, for each nozzle bar, immediately adjacent nozzles are inclined in opposite directions.

21. (Currently Amended) An apparatus for tempering a bent glass sheet, comprising means for conveying the bent glass sheet along a predetermined path through the apparatus which follows a centerline of the apparatus, and a pair of blastheads for quenching the bent glass sheet with jets of quench gas, the blastheads comprising upper and lower blastheads arranged in opposed relationship above and below the predetermined path, the lower blasthead comprising a plurality of spaced elongate plenums for supplying quench gas to an array of quench nozzles from which the jets of quench gas issue, each plenum bearing one or two rows of quench nozzles, successive such rows constituting the array of quench nozzles, each plenum possessing a longitudinal centerline extending along a longitudinal extent of the plenum, each nozzle possessing an axis, the length of the quench nozzles exceeding their diameter, and the quench nozzles of each plenum being mutually inclined so that the axes of some of the nozzles of each plenum are inclined to one side of the plenum relative to a vertical plane containing the longitudinal centerline of the plenum and the axes of others of the nozzles in each plenum are

inclined towards an opposite side of the plenum relative to the vertical plane
containing the longitudinal centerline of the plenum to provide diverging jets of quench gas, each of the plenums extending transverse to a direction of conveyance of the bent glass sheet and the plurality of plenums being arranged in spaced apart relation to one another so that a gap exists between adjacent pairs of the plenums to afford side access between the adjacent pairs of the plenums, each array of quench nozzles being curved in at least one direction, the adjacent pairs of plenums comprising two first plenums positioned in spaced apart adjacent relation to one another with a first gap between the two first plenums, the adjacent pairs of plenums comprising two second plenums positioned in spaced apart adjacent relation to one another with a second gap between the two second plenums, the first plenums being connected to one another by first connecting surfaces positioned in the first gap between the first plenums, the first connecting surfaces extending at an incline downwardly away from the centerline to facilitate cullet removal, the second plenums being connected to one another by second connecting surfaces positioned in the second gap between the second plenums, the second connecting surfaces extending at an incline downwardly away from the centerline to facilitate cullet removal.